

## **REMARKS**

### **The Amendments**

Claims 22 and 29 are amended as to their format and claim 22 is re-written in independent form. Claim 23 is amended to depend from claim 22. The Office Action indicated no prior art rejection against the subject matter of claim 22 and that claim 23 would be allowable if re-written in independent form. By re-writing claim 22 in independent form, overcoming the 35 U.S.C. §112 rejection and making claim 23 dependent on claim 22, it is believed that claims 22 and 23 are directed to the allowable subject matter already indicated in the Office Action.

The amendments do not narrow the scope of the claims and/or were not made for reasons related to patentability. The amendments should not be interpreted as an acquiescence to any objection or rejection made in this application. To the extent that the amendments avoid the prior art, competitors are warned that the amendments are not intended to and do not limit the scope of equivalents which may be asserted on subject matter outside the literal scope of any patented claims but not anticipated or rendered obvious by the prior art. Applicants reserve the right to file one or more continuing and/or divisional applications directed to any subject matter disclosed in the application which has been canceled by any of the above amendments.

### **The Rejection under 35 U.S.C. §112, second paragraph**

The rejection of claims 22 and 29 under 35 U.S.C. §112, second paragraph, is believed to be rendered moot by the above amendments.

### **The Rejections under 35 U.S.C. §102/103**

The several rejections of claims 18-21 and 24-31 under 35 U.S.C. §102, as anticipated, or under 35 U.S.C. §103, as being obvious, over at least one of Marco (Phytopathology article), JP 60-149508, Letteron (U.S. Patent No. 3,099,897), Ambrosius (U.S. Patent No. 4,867,794), Duschek (U.S. Patent No. 5,472,491) and GB 2,098,247 are respectfully traversed.

Initially, it is pointed out that the claims literally recite methods and composition for protecting plants by application of a composition containing an "**interference pigment**." See independent claims 18, 22 and 25. See the attached excerpt of a web page which relates to interference paints but discusses generally the structure of interference pigments and how they work. Accordingly, the citation in the Office Action to methods and compositions containing particular reflective materials is not relevant support for rejecting the instant claims. While interference pigments have reflective properties, not all reflective materials are interference pigments and, particularly, the reflective materials disclosed in the cited prior art – as further pointed out below – do not include interference pigments.

Marco is discussed beginning at the bottom of page 2 of the instant specification. It discloses the use of whitewash sprays on plants to reduce the incidence of aphid-transmitted virus infections. Whitewash sprays contain inert reflective materials but would not contain interference pigments. They typically consist of fine white powder material typically of the type described at the last full paragraph of page 4 of the translation of JP 60-149508 (submitted herewith by applicants and discussed below).

Thus, Marco certainly does not disclose – and cannot anticipate – either methods or compositions containing interference pigments. Further, there is no suggestion at all from the

reference to replace the white powder or any other reflective materials with an interference pigment. Interference pigments provide an iridescence effect and there is no suggestion in Marco that any such effect would be desired. In the absence of any teaching to one of ordinary skill in the art of a **desirability** to modify the reference to replace the reflective materials with interference pigments, an obviousness rejection under 35 U.S.C. §103 is not supported. See In re Laskowski, 10 USPQ2d 1397 (Fed. Cir. 1989); and, In re Geiger, 2 USPQ2d 1276 (Fed. Cir. 1987).

Regarding JP 60-149508, a full English-language translation thereof is provided. This reference provides essentially the same teaching as Marco discussed above, i.e., the coating of plants with a white-colored material to repel certain insects. This reference further states at page 3, first full paragraph, that the effectiveness of the invention is based on the insects' avoidance of white-colored materials. Thus, like Marco, there is certainly no teaching of using an interference pigment or providing a composition containing such because the effect is said to be caused by the color and not by any iridescence effect. There would be no desire or motivation for one of ordinary skill in the art to replace the white mineral material of JP '508 with a more complex interference material. Thus, the reference also does not support a rejection under 35 U.S.C. §103.

Letteron discloses the use of mica materials for mulching purposes. Mica, without a metal oxide coating layer which is not disclosed or suggested in Letteron, is not an interference pigment. Nor is there any suggestion to modify the Letteron materials to make them interference pigments. For this reason, at least, Letteron cannot anticipate nor render obvious the claimed invention, i.e., either the methods or the interference pigment-containing compositions. Letteron is additionally distinguished from the method claims because it does not suggest a method involving applying its materials to the surface of plant. Letteron

discloses only use of its materials for mulching purposes, i.e., for application to the ground around plants to prevent unwanted plant growth, such as weeds.

As admitted in the Office Action, Ambrosius does not even remotely disclose or suggest a method for applying a composition to the surface of a growing plant. Accordingly, it certainly cannot anticipate or render obvious applicants' instant method claims. Further, Ambrosius does not anticipate or render obvious the instant composition claims since there is no disclosure or suggestion in Ambrosius of combining its interference pigments with "at least one agriculturally acceptable diluent, carrier or adjuvant" to make the composition "effective for applying to at least one surface of a growing plant." Compare instant claim 25. There are no teachings in Ambrosius to suggest that the reference inventors had any contemplation of using their interference pigments for other than the normal uses which, prior to applicants' invention, did not include agricultural uses. Thus, it should be evident that Ambrosius does not teach or suggest a composition additionally containing an "agriculturally acceptable diluent, carrier or adjuvant." Further, it certainly does not teach or motivate the preparation of a composition with is "effective for applying to at least one surface of a growing plant." In this latter respect, see also claim 26 relating to particular forms of a spray or dusting powder which are even more clearly not disclosed or suggested by Ambrosius. For the above reasons, it is urged that the 35 U.S.C. §102 and/or §103 rejection should be withdrawn.

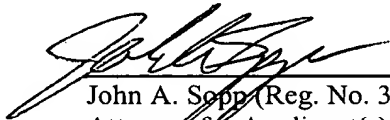
Duschek provides a disclosure essentially the same as Ambrosius, i.e., it discloses interference pigments but provides no teaching or suggestion of any method of using these pigments in a composition for applying to the surface of a plant. Thus, the arguments made above distinguishing Ambrosius apply equally in traversing the rejection based on Duschek and are incorporated by reference herein. The rejection based on Duschek should also be

withdrawn for these reasons.

UK 2,098,247 is distinct from applicants methods and compositions for several reasons. This reference is directed to the use of reflective netting material for placing over plants. UK '247 neither discloses nor suggests the use of an interference pigment or a composition containing such, for any use, let alone treating plants. Nor is there any suggestion to use an interference pigment in the UK netting materials. This alone distinguishes the reference from all of the applicants' claims.

It is submitted that the claims are in condition for allowance. However, the Examiner is kindly invited to contact the undersigned to discuss any unresolved matters.

Respectfully submitted,



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John A. Sopp (Reg. No. 33,103)  
Attorney for Applicant(s)

MILLEN, WHITE, ZELANO & BRANIGAN, P.C.  
Arlington Courthouse Plaza I, Suite 1400  
2200 Clarendon Boulevard  
Arlington, Virginia 22201  
(703) 812-5315 [Direct Dial]  
(703) 243-6410 [Facsimile]  
Internet Address: [sopp@mwzb.com](mailto:sopp@mwzb.com)

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## MARKED-UP VERSION OF CLAIM AMENDMENTS

22. (Amended) ~~The method according to claim 18~~ A method for protecting a growing plant from insects and from insect-transmitted plant viruses, which comprises applying to at least one surface of the growing plant, a composition comprising at least one interference pigment whereby said composition is effective to repel said insects and thus protect the plant, wherein said interference pigment is selected from the group consisting of:

a mica coated with  $\text{TiO}_2$ ;

a mica coated with  $\text{Fe}_2\text{O}_3$ ;

a mica coated with both  $\text{TiO}_2$  and  $\text{Fe}_2\text{O}_3$ ;

a mica coated with both  $\text{TiO}_2$  and graphite;

a mica coated with  $\text{TiO}_2$  and  $\text{SnO}_2$ ; and

~~BiOCl~~ BiOCl crystals.

23. (Amended) The method according to claim 18 22, wherein the interference pigment is mica coated with  $\text{TiO}_2$  further containing in the coating at least one of graphite and  $\text{SnO}_2$ .

29. (Amended) A composition according to claim 25, wherein interference pigment is selected from the group consisting of:

a mica coated with  $\text{TiO}_2$ ;

a mica coated with  $\text{Fe}_2\text{O}_3$ ;

a mica coated with both  $\text{TiO}_2$  and  $\text{Fe}_2\text{O}_3$ ;

a mica coated with both  $\text{TiO}_2$  and graphite; and

~~BiOCl~~ BiOCl crystals.